

The Vocabulary-Rich Classroom: Modeling Sophisticated Word Use to Promote Word Consciousness and Vocabulary Growth

Holly B. Lane, Stephanie Arriaza Allen

Promoting incidental learning and word consciousness through frequent and deliberate modeling of sophisticated vocabulary can add substantial breadth to students' vocabularies.

The Weather Watcher

In Ms. Barker's (all names are pseudonyms) kindergarten classroom, just like in so many other kindergarten classrooms, the day began with "circle time." During circle time, Ms. Barker led her students through a series of routines designed to teach basic skills and help students acquire fundamental knowledge. They sang songs that helped them remember the letters of the alphabet and their numbers in sequence. The students spent time on calendar activities that helped them learn the months of the year and the days of the week.

Ms. Barker assigned classroom jobs during circle time, too, and guided the students in carrying out their duties. The "zookeeper" was in charge of feeding and watering the classroom pets (a pair of hamsters). The "cleanup helper" made certain that all scraps of paper were picked up off the floor throughout the day. The "line leader" got to be first in line to lunch and anywhere else the class went, and the "caboose" was in charge of bringing up the rear of the line. Finally, the "weather watcher" reported the day's weather to the group, so they could discuss how to prepare for such weather—what to wear, whether to carry an umbrella, and so forth.

The weather watcher activity also illustrated how Ms. Barker carefully guided her students' vocabulary development. One early September day, Ms. Barker announced, "Sarah, you're our weather watcher today. Go outside and watch the weather and come back and tell us what it's going to be like outside today." Sarah dutifully jumped up and walked to the classroom door that opens to the outside. She opened the door and, standing in the doorway, looked up and around her and said quietly to herself, "Sunny." As she made her way back to the circle, she repeated to herself in a whisper, "Sunny. Sunny. Sunny." It was all Sarah could do to keep this important word in her head for the 30 seconds she needed it there. When Ms. Barker asked Sarah for her weather report, Sarah blurted out, "Sunny!" Sarah was obviously relieved. Ms. Barker smiled at Sarah and continued with the discussion, "That's right, it's sunny outside today. Does that mean it will be warm or cool?"

Given the time of year, only three weeks into the school year, Sarah's response was exactly what could be expected. The choices of words to describe the weather at that time were *sunny*, *cloudy*, and *rainy*. The children were learning the difference between these basic terms and what they meant to them. Should they wear shorts or long pants? Should they wear a raincoat? Will they be able to play outside? They were getting what they needed at that point in their development.

Fast forward to February in Ms. Barker's class. Circle time looked much like it did in September, but there were subtle differences. Instead of simply reciting the days of the week, the students were able to tell Ms. Barker what day it was yesterday and what day it will be three days from then. Instead of simply

reciting the months of the year, the children identified the holidays that occur in February, how many days there are in the month, and in what season it falls.

Perhaps the biggest difference became evident when Ms. Barker was going over the duties of the class jobs. The zookeeper had become the “animal nutrition specialist.” The cleanup helper had become the “custodian.” The line leader was the “class movement coordinator,” whereas the caboose was still the caboose. The weather watcher had become the “meteorologist.”

Ms. Barker explained, “Jared, you’re our meteorologist for today. Go outside and observe the weather conditions, then bring us back your weather forecast.” Jared did as directed and returned to the circle. When Ms. Barker asked for his forecast, he announced, “It’s going to be rather brisk today.” Ms. Barker smiled and went on with the discussion about how to prepare for brisk weather.

The observer in this classroom, a bit startled at a 5-year-old’s use of the words *rather brisk*, approached Jared later to ask him about his choice of words. Jared explained, “Well, it’s colder than cool, but it’s a long way from frigid.” Even more surprised that Jared not only used the word appropriately but also seemed to have a strong command of its meaning, the observer asked Ms. Barker how Jared came to know such sophisticated ways to describe the weather.

Ms. Barker explained that it was all part of the design of her circle time. At the beginning of the year, children learned the basic concepts through repetition and practice. Her challenges at that point were to keep the concepts understandable and engaging. As the children mastered the basics, her efforts turned to building on this solid foundation of knowledge. She used the classroom jobs to expand her students’ vocabulary. Although at the beginning of the year the zookeeper “feeds the hamsters,” by midyear the animal nutrition specialist “provides nutritional sustenance to our rodent friends.”

The kindergartners in Ms. Barker’s class were all comfortable using words that we do not typically expect to hear 5-year-olds using. Their comfort came from their teacher’s careful approach to developing their vocabularies through modeling and meaningful practice. Their well-developed vocabularies will undoubtedly serve them well as they learn to read.

Affable Annie

In Ms. Rivas’s fourth-grade class, everyone looked forward to “morning meeting” (Kriete & Bechtel, 2002). The routine was a critical piece of her classroom management plan, but more importantly, it served as a catalyst for building her classroom community and for learning in engaging ways. The first segment of the morning meeting routine was the “greeting.” The greeting ensured that each student was recognized daily and made to feel like a part of the group. The greeting activity changed from day to day, but one of the favorites was generating positive words to describe classmates as they were greeted. Each student was directed to say hello to the person sitting to his or her left and to say something to described this person in a positive way. Each greeting was said aloud for the whole class to hear.

When the school year started, this type of greeting was limited to simple descriptive words: “Hi, Annie! You are always nice”; “Hello to the very happy Fernando”; “Good morning, Tyran, you are so talented.” As the year progressed, Ms. Rivas encouraged students to think of more original ways to describe their classmates. At first, students were reluctant to stretch their vocabularies too far, and *nice*, *happy*, and *talented* became *friendly*, *jolly*, and *creative*—an improvement, albeit a small one.

To push her students a bit further, Ms. Rivas took over the greeting one day, replacing words she had used to describe children before with substantially more sophisticated synonyms. The words she chose were mostly words the children had never heard before, but they were words that related to the ideas already expressed about each student. Annie was *affable*, Fernando was *jovial*, and Tyran was *virtuous*.

These new words sent the children scrambling to their dictionaries to find out what exactly Ms. Rivas was saying about them. The students each learned at least their own descriptive word, and most remembered a few more. This simple step nudged the students to work harder to generate better, more sophisticated descriptors the next time this greeting routine was used. Each time, the student who used the new word and the student the word described were virtually assured to learn and remember the word. Everyone in the class heard each word, however, and associated the word with a classmate, helping them understand its meaning. The students

soon became comfortable with a large collection of descriptive words.

Before long, Ms. Rivas started to notice these descriptive words being used during class discussions and even during casual conversations among students. She was thrilled to see the words turning up in writing assignments, as her students described characters in stories or the historical figures they were learning about in social studies. The students owned these words.

The Role of Vocabulary Learning

Vocabulary is a critical factor in the development of reading skills. Vocabulary knowledge has long been identified as one of the best predictors of reading comprehension (Davis, 1972; Thorndike, 1917), reading performance in general, and school achievement (Beck, McKeown, & Kucan, 2002, 2008). Receptive vocabulary is also a predictor of decoding skills (Ouellette, 2006). The more words the reader knows, the easier it will be to read and understand what is read (Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006; Kamil, 2004; National Institute of Child Health and Human Development [NICHD], 2000).

Unfortunately, not every student comes to school with an adequate level of vocabulary knowledge to support reading success, and the diversity of vocabulary knowledge among children entering school is great (Blachowicz et al., 2006). Among students from different socioeconomic groups or with different learning abilities, there is a marked difference in vocabulary knowledge (Beck et al., 2002; Hart & Risley, 1995). Furthermore, these differences can be observed throughout the school grades (Beck et al., 2002; White, Graves, & Slater, 1990). Unless vocabulary becomes an integral part of everyday literacy instruction, the gap among groups will continue to widen, making it harder for low-performing groups to catch up to their peers. Vocabulary instruction is particularly critical for students with reading difficulties,

as their improvements in comprehension as a result of vocabulary instruction are even greater than for students without reading difficulties (Elleman, Lindo, Morphy, & Compton, 2009).

Thus, vocabulary instruction should be “robust—vigorous, strong, and powerful in effect” (Beck et al., 2002, p. 2). To have an effect on reading comprehension, vocabulary instruction should include multiple exposures to a word, teach both definitions and contexts, and engage students in deep processing (Beck et al., 2008).

What Does It Mean to Know a Word?

Vocabulary refers to the “knowledge of words and word meanings” (Honig, Diamond, Cole, & Gutlohn, 2008, p. 407). Different types of vocabulary are used in different circumstances. According to Kamil and Hiebert (2005), there are four types of vocabulary: oral, print, receptive, and productive. Oral vocabulary refers to those words we understand when we communicate orally or when someone reads aloud to us. Print vocabulary refers to words we know when we read or write. Receptive vocabulary includes words we understand when we listen or read. Productive vocabulary encompasses words that are used during speaking and writing. According to Kamil and Hiebert (2005), words in the receptive vocabulary are “less well known” and “less frequent in use” (p. 3) when compared with productive vocabulary. Words used in speaking and writing tend to be “well known, familiar, and used frequently” (p. 3). Overall, receptive vocabulary is larger than productive vocabulary and plays a key role in the early years when children

learn to read. As they encounter text and decode words, they use their knowledge of words to understand what they read. If the words they encounter are not part of their vocabulary, the readers will not comprehend their meaning (Kamil, 2004). Therefore, developing children’s vocabulary is extremely important.

When we talk about developing children’s vocabulary, we are not only talking about knowing a high number of words but also about how well they know those words. According to Beck et



al. (2002), “knowing a word is not an all-or-nothing proposition: it is not the case that one either knows or does not know a word” (p. 9). That is, an individual may know a little bit or a lot about a word. Dale (1965) was one of the first to explain the importance of differences in levels of word knowledge and to classify these levels: (a) never saw or heard the word before; (b) heard the word, but does not know its meaning; (c) recognizes the word in context as having something to do with _____; and (d) knows the word well. Beck, McKeown, and Omanson (1987) also identified the quantity of word knowledge along a continuum of levels: (a) no knowledge; (b) general sense of the word; (c) narrow, context-bound knowledge; (d) some knowledge of a word, but not being able to recall it readily enough to use it in appropriate situations; and (e) rich, decontextualized knowledge of a word’s meaning.

So what should our goal for instruction be? Some researchers (e.g., Beck et al., 2002; Coyne, 2009) suggested that knowing fewer words well is more important than knowing many words superficially. According to Beck et al., teachers should strive to help students use the words they have learned not only during reading but also during writing and speaking. This means that they need a “deep kind of knowledge” (p. 11). Other researchers (e.g., Biemiller & Boote, 2006) promoted breadth of vocabulary knowledge acquisition. Those who emphasize vocabulary breadth assert that knowing many words is critical to understanding a variety of text. No matter which they emphasize, most researchers would agree that both breadth and depth of vocabulary knowledge are important.

Selecting Words to Teach

Although recent research tells us more about how to teach words, determining which words to teach remains a challenge (Coyne, Simmons, Kame’enui, & Stoolmiller, 2004). Nagy and Anderson (1984) found that a typical third grader knows about 8,000 words, and a high school student knows between 25,000 and 50,000 words, or even more. A student typically will learn between 3,000 and 4,000 new words each year (Graves & Watts-Taffe, 2002). Knowing this, Beck and colleagues (2002, 2008) argued that not all unfamiliar words in a text should be the focus of classroom instruction. They developed a three-tier model for selecting words to teach, based on each word’s

level of utility. The first tier includes basic words that most children already know and that seldom require direct instruction in school. Words like *house*, *mom*, *car*, and *toy* are examples of tier 1 words. Tier 2 includes words that are key to comprehension and are frequently used by “mature language users” (p. 16). Examples of tier 2 words include *curious*, *gazing*, *mysterious*, *stingy*, *scrumptious*, and *drowsy*. Tier 3 encompasses low-frequency words that are associated with specific domains or content areas. This tier includes words like *morpheme*, *peninsula*, *similes*, *nucleus*, and *protons*. Tier 3 words should be taught as they are encountered, usually during content-area instruction. However, the focus of most vocabulary instruction should be on tier 2 words—those words that adults use with ease in everyday conversation, reading, and writing.

Beck and McKeown (2007) maintained that sophisticated words are particularly appropriate for instruction, because these words are not likely to be encountered or learned through typical interaction with academic materials or everyday conversation. Selecting for instruction words that are more sophisticated labels for familiar concepts expands both vocabulary breadth and depth. Vocabulary breadth is expanded, because these sophisticated words add to the number of words a child knows. Vocabulary depth is increased, because each of the new words can be linked to familiar words, which enhances understanding of both the new and familiar words.

Promoting Word Consciousness

Considering the number of new words a child encounters each year, vocabulary instruction becomes a titanic task. Based on this knowledge, Graves (2000) identified four key components of vocabulary instruction: wide reading, instruction of individual words, word learning strategies, and development of word consciousness. Word consciousness involves being aware and interested in words and word meanings (Anderson & Nagy, 1992; Graves & Watts-Taffe, 2002) and noticing when and how new words are used (Manzo & Manzo, 2008). Individuals who are word conscious are motivated to learn new words and able to use them skillfully. Helping students become word conscious is a crucial endeavor for teachers across grade levels, especially teachers working with students whose prior vocabulary exposure may be limited.

By mid-kindergarten, Ms. Barker's students were eager to learn new words for familiar concepts. Their enthusiasm stemmed from the success they had learning new words all year, with Ms. Barker's support, in a word-rich environment. They noticed unfamiliar words when others used them and asked what the words meant. They also recognized new words they had learned as they heard them used in different contexts, allowing them to deepen their understanding of the words and make more connections between the new words and other words.

Frequent encounters help students not only remember the meaning of words but also access word meanings more efficiently.

By mid-kindergarten, these children had already developed sharp word consciousness. Similarly, the fourth-grade students Ms. Rivas taught moved beyond finding sophisticated words to describing their classmates and applying their word consciousness to classroom assignments and even to their conversations with their peers.

Both teachers worked in high-poverty schools with large populations of English-language learners. Ms. Barker's school is a rural school, where many of the students are children of migrant farm workers. Ms. Rivas teaches in an urban school, where nearly 100% of the students participate in the free and reduced-price lunch program. These teachers recognized the need for their students to learn as many words as they can during the school day, because their home environments provided little opportunity for word learning. Despite these challenges, their students became word conscious and were anxious to add words to their lexicons.

According to Graves and Watts-Taffe (2002), this positive disposition for words greatly facilitated the challenging task of learning thousands of words each year, especially since most of the learning happens incidentally in the context of reading and listening (NICHD, 2000). Incidental learning from context has been identified as a main cause of vocabulary growth among children. Children are remarkably skilled at learning new words from unstructured contexts (Akhtar, Jipson, & Callanan, 2001; Nagy, Herman, & Anderson, 1985; Rice, Buhr, & Oetting, 1992). This effortless acquisition of word knowledge

happens through oral communication and casual reading without direct instruction (Nagy et al., 1985; Oetting, Rice, & Swank, 1995).

Because incidental learning is an authentic medium for expanding children's vocabulary, and word consciousness is key for this learning to happen, teachers can take advantage of adult-child interactions in the classroom to model the use of sophisticated language (Beck et al., 2002; Graves & Watts-Taffe, 2002). Incorporating these words into daily routines and classroom conversations creates a learning atmosphere where children become motivated and competent in word usage. Graves and Watts-Taffe (2002) suggested that teachers should promote "adept diction" (p. 145) as a way of developing word consciousness. Teachers who model and encourage adept diction foster curiosity and interest about words in their students.

In addition to a general atmosphere of promoting adept diction, we need to consider other conditions that are necessary to ensure learning. One of the main findings of the National Reading Panel (NICHD, 2000) regarding vocabulary instruction was that repetitious and diverse exposures to vocabulary are vital. The more children hear, see, and engage with words, the better they will learn them (Armbruster, Lehr, Osborn, & Adler, 2001). According to Beck et al., (2008), frequent encounters help students not only remember the meaning of words but also access word meanings more efficiently. This has a significant implication for reading, because when readers access word meanings quickly, more cognitive resources are available to be allocated to the comprehension of connected text (Beck et al., 2008; Beck, Perfetti, & McKeown, 1982).

Modeling Sophisticated Vocabulary Use

Multiple encounters are important in word learning, but they are not enough. For children to actually learn and use the new words, teachers need to make sure that those encounters allow children to make connections with their prior knowledge and experiences (Armbruster et al., 2001). There are many different strategies we can use to foster the acquisition of new and more sophisticated words, but one of the simplest and most powerful approaches is Ms. Barker's method of frequently modeling sophisticated labels

for familiar concepts. Several aspects of her method likely contributed to its effectiveness.

First, she planned carefully which words she would introduce. She spent a good deal of time thinking about the words she used throughout the school day. She made lists of words that were related to classroom routines and to different areas of the curriculum. For each word on each list, she searched for more sophisticated substitutes and culled these lists of synonyms to a list of words she believed to be manageable for her students. She selected words that related to the most familiar concepts first and began introducing more sophisticated terms for those words. For example, the children already knew what it meant to feel *happy*, so Ms. Barker began using synonyms such as *glad*, *cheerful*, and *delighted*. They already knew what *nice* meant, so she began to use *kind*, *pleasant*, and *thoughtful*. Most importantly, she helped the children understand when one of those words might be a more appropriate choice than another. For other words, she taught the concept and the simpler word first, then only after allowing the children to become comfortable with the simple word, she introduced the more sophisticated synonym. Her circle time routine was replete with this type of introduction.

Although her students' learning of the words may have been incidental, Ms. Barker's teaching was not. The introduction of new words was deliberate but natural. With some words, the instruction was somewhat implicit. For example, she asked for a volunteer to pass out paper for an art activity to each table. When they were finished, as she started directions for the activity, she said, "Thank you, Angelo, for distributing the paper." She continued casually linking *pass out* with *distribute* in this way for a few more days until one day when she asked for a volunteer to help "distribute our snacks," and all the children knew what this meant.

With other words, instruction would be more explicit. For example, Ms. Barker explained to her students, "Everybody knows now what the weather watcher does, right? Today, we're going to learn a new word for weather watcher. From now on, we'll call the weather watcher our meteorologist. A meteorologist watches the weather. Can everyone say that word with me? Meteorologist." All the children practiced saying the word with help from Ms. Barker. By saying the word themselves, the children created a phonological representation of the word in their

heads that will make it easier to recall the word later (Beck, 2004). Ms. Barker followed up at the end of the lesson by asking again, "What is our new name for the weather watcher?" and the children said the new word again, further strengthening the associations they were forming.

With older children, Ms. Rivas was able to delegate more of the responsibility for learning new words to her students. She first made them comfortable with the greeting routine during the morning meeting. She then provided a clear and compelling example for them to follow. Finally, she encouraged their attempts to follow her example as the students used sophisticated words on their own.

Ms. Barker and Ms. Rivas both made decisions about how direct their teaching needed to be to ensure students learned the words they intended. Their decisions to use either implicit or explicit means to introduce new words were based on (a) their familiarity with their students' word knowledge and (b) careful thought about the complexity of the words (Mercer, Lane, Jordan, Allsopp, & Eisele, 1996). Any teacher at any grade level can follow these procedures for generating a list of words to teach through modeling. Familiarity with a particular group of students and what they know is the best gauge to use when selecting words. Table 1 contains sophisticated words that might be used to substitute for the more mundane words we typically use during classroom routines. When a teacher shifts from asking the class to line up *next* to the wall to suggesting they line up *adjacent* to the wall, she is expanding her students' vocabularies. Table 2 contains words to use when describing students' behavior or academic performance.

Sophisticated words can also be used during content instruction. For example, beyond the content vocabulary in a unit on plants (e.g., stamen, pistil, germinate), the teacher can find mature words to describe plant growth in general (e.g., flourish, thrive) or a particular plant (e.g., a *meandering* vine). Table 3 contains examples of words that might be connected to specific content areas.

Avoiding the Temptation to "Dumb Down" Our Language for Children

One of the biggest barriers to vocabulary growth in school is the simplistic way many teachers talk to

Table 1
Sophisticated Words to Use During Classroom Routines

Classroom supplies	Walking in line	Group time
accumulate	adjacent	articulate
allocate	approach	ascertain
allot	disorderly	assemble
amass	efficiently	coherent
arrange	file	contribute
collect	halt	converse
deplete	linger	convey
dispense	orderly	cooperate
distribute	parallel	deliberate
dole	pause	determine
gather	perpendicular	disband
hoard	proceed	disperse
issue	procession	elaborate
replenish	proximity	elucidate
reserve	queue	express
stockpile	rapidly	lucid
	remain	oblige
	swiftly	partake
	vicinity	participate
		portray
		verbalize

Table 2
Sophisticated Words to Use When Discussing Classroom Behavior or Performance

satisfactorily	conflict	impolite	correct	wrong
affable	amends	boorish	accomplished	awkward
agreeable	bicker	coarse	appropriate	erroneous
amiable	quarrel	discourteous	exemplary	flawed
compassionate	rectify	offensive	masterful	inaccurate
considerate	resolve	uncouth	precise	inadequate
courteous	squabble	vulgar	proficient	incorrect
decorous			proper	invalid
gracious			superior	
pleasant			suitable	
respectful				
sympathetic				

children. We have all been guilty at one time or another of using words beneath our students' level of understanding. Simplistic vocabulary may be appropriate for initial instruction, as a support for students' understanding of a new concept. But once students develop a basic understanding, it is time to elevate our instructional language to enhance our students' vocabularies.

For example, at the beginning of first grade, teaching students to put a list of words in "ABC order" may

help them better understand the concept of alphabetizing. However, even first graders can understand that *alphabetical* order is the same thing as ABC order, and using the more sophisticated term as soon as students understand the concept is appropriate. Continuing to use the simplistic term limits our students' vocabulary growth. Likewise, using phrases such as *take away* in place of *subtract* or *same as* in place of *equal* beyond initial instruction is limiting. If we listen carefully to our own words during

Table 3
Sophisticated Words That Are Related to Specific Content Areas

Science: Plant life	Science: Space	Social studies: Civilizations
abundant	celestial	cooperation
burgeoning	existence	customary
dwindling	globe	dominant
fertile	immeasurable	hardy
flourish	infinite	hierarchy
lush	miniscule	nomadic
meandering	orb	obligation
neglect	remote	prosperity
sow	trajectory	resistant
tend	universe	resourceful
thrive	vast	stability

instruction, most teachers can find many examples of unnecessarily simplistic language use. Avoiding oversimplification and exposing students to more mature terminology helps them be more confident as they progress to more complex content.

Be a Word-Conscious Teacher

Incidental learning is the method by which we acquire knowledge of most new words throughout our lives. It is important to note, however, that incidental learning is necessary but not sufficient for the vocabulary learning that must occur during the school years. We know that children learn words best through extended instruction over time (Coyne, 2009), and explicit instruction is the best way to ensure that children learn word meanings and, especially, subtle differences between words (Scott & Nagy, 2004). That said, promoting incidental learning and word consciousness through frequent and deliberate modeling of sophisticated vocabulary can add substantial breadth to children's vocabularies.

Being a word-conscious teacher is the best way to promote word consciousness among students. Ms. Barker's kindergarten class is a prime example of well-developed word consciousness. By linking new words with familiar concepts, introducing the words clearly and matter-of-factly during classroom routines, having the children say the word repeatedly, and then continuing to use the word in place of the familiar word, Ms. Barker optimized conditions for word learning—and it showed. Likewise, by beginning with words that described her students, Ms.

Rivas hooked her students immediately, because they all wanted to know what she was saying about them.

The students in both teachers' classes used language far beyond what might otherwise be expected for their age and grade level, and they used this language effortlessly. They enjoyed learning and using new words. As the kindergartners move into reading independently, their advanced vocabularies will support their reading comprehension. As the fourth graders face more challenging assignments and high-stakes assessments in reading and writing, their expanded vocabularies will become a support to them. Any teacher can accomplish what Ms. Barker and Ms. Rivas did by creating a word-rich classroom environment with more sophisticated models for students to follow.

References

- Akhtar, N., Jipson, J., & Callanan, M.A. (2001). Learning words through overhearing. *Child Development*, 72(2), 416–430. doi:10.1111/1467-8624.00287
- Anderson, R.C., & Nagy, W.E. (1992). The vocabulary conundrum. *American Educator*, 16(4), 14–18, 44–47.
- Armbruster, B.B., Lehr, F., Osborn, J., & Adler, C.R. (2001). *Put reading first: The research building blocks for teaching children to read, kindergarten through grade 3*. Washington, DC: National Institute for Literacy, U.S. Department of Education.
- Beck, I.L. (2004, April). *Igniting students' knowledge of and interest in words*. Presentation at the Florida Middle School Reading Leadership Conference, Orlando, FL.
- Beck, I.L., & McKeown, M.G. (2007). Different ways for different goals, but keep your eye on the higher verbal goals. In R.K. Wagner, A.E. Muse, & K.R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 182–204). New York: Guilford.

- Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford.
- Beck, I.L., McKeown, M.G., & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples*. New York: Guilford.
- Beck, I.L., McKeown, M.G., & Omanson, R.C. (1987). The effects and uses of diverse vocabulary instructional techniques. In M.G. McKeown & M.E. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 147–163). Hillsdale, NJ: Erlbaum.
- Beck, I.L., Perfetti, C.A., & McKeown, M.G. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology*, 74(4), 506–521. doi:10.1037/0022-0663.74.4.506
- Biemiller, A., & Boote, C. (2006). An effective method for building meaning vocabulary in primary grades. *Journal of Educational Psychology*, 98(1), 44–62. doi:10.1037/0022-0663.98.1.44
- Blachowicz, C.L.Z., Fisher, P.J.L., Ogle, D., & Watts-Taffe, S. (2006). Vocabulary: Questions from the classroom. *Reading Research Quarterly*, 41(4), 524–539. doi:10.1598/RRQ.41.4.5
- Coyne, M.D. (2009, April). *Closing the vocabulary gap: Current issues in vocabulary intervention and research*. Paper presented at the annual meeting of the Council for Exceptional Children, Seattle, WA.
- Coyne, M.D., Simmons, D.C., Kame'enui, E.J., & Stoolmiller, M. (2004). Teaching vocabulary during shared storybook readings: An examination of differential effects. *Exceptionality*, 12(3), 145–162. doi:10.1207/s15327035ex1203_3
- Dale, E. (1965). Vocabulary measurement: Techniques and major findings. *Elementary English*, 42, 895–901, 948.
- Davis, F.B. (1972). Psychometric research on comprehension in reading. *Reading Research Quarterly*, 7(4), 628–678. doi:10.2307/747108
- Elleman, A.M., Lindo, E.J., Morphy, P., & Compton, D.L. (2009). The impact of vocabulary instruction on passage-level comprehension of school-age children: A meta-analysis. *Journal of Research on Educational Effectiveness*, 2(1), 1–44. doi:10.1080/19345740802539200
- Graves, M.F. (2000). A vocabulary program to complement and bolster a middle-grade comprehension program. In B.M. Taylor, M.F. Graves, & P. van den Broek (Eds.), *Reading for meaning: Fostering comprehension in the middle grades* (pp. 116–135). New York: Teachers College Press; Newark, DE: International Reading Association.
- Graves, M.F., & Watts-Taffe, S.M. (2002). The place of word consciousness in a research-based vocabulary program. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 140–165). Newark, DE: International Reading Association.
- Hart, B., & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul H. Brookes.
- Honig, B., Diamond, L., Cole, C.L., & Gutlohn, L. (2008). *Teaching reading sourcebook: For all educators working to improve reading achievement*. Novato, CA: Arena; Berkeley, CA: Consortium on Reading Excellence.
- Kamil, M.L. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCordle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 213–234). Baltimore: Paul H. Brookes.
- Kamil, M.L., & Hiebert, E.H. (2005). Teaching and learning vocabulary: Perspectives and persistent issues. In E.H. Hiebert & M.L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 1–23). Mahwah, NJ: Erlbaum.
- Kriete, R., & Bechtel, L. (2002). *The morning meeting book*. Greenfield, MA: Northeast Foundation for Children.
- Manzo, U.C., & Manzo, A.V. (2008). Teaching vocabulary-learning strategies: Word consciousness, word connection, and word prediction. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about vocabulary instruction* (pp. 80–105). Newark, DE: International Reading Association.
- Mercer, C.D., Lane, H.B., Jordan, L., Allsopp, D.H., & Eisele, M.R. (1996). Empowering teachers and students with instructional choices in inclusive settings. *Remedial and Special Education*, 17(4), 226–236. doi:10.1177/074193259601700405
- Nagy, W.E., & Anderson, R.C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19(3), 304–330. doi:10.2307/747823
- Nagy, W.E., Herman, P.A., & Anderson, R.C. (1985). Learning words from context. *Reading Research Quarterly*, 20(2), 233–253. doi:10.2307/747758
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: National Institutes of Health.
- Oetting, J.B., Rice, M.L., & Swank, L.K. (1995). Quick incidental learning (QUIL) of words by school-age children with and without SLI. *Journal of Speech and Hearing Research*, 38(2), 434–445.
- Ouellette, G.P. (2006). What's meaning got to do with it: The role of vocabulary in word reading and reading comprehension. *Journal of Educational Psychology*, 98(3), 554–566. doi:10.1037/0022-0663.98.3.554
- Rice, M.L., Buhr, J., & Oetting, J.B. (1992). Specific-language-impaired children's quick incidental learning of words: The effect of a pause. *Journal of Speech and Hearing Research*, 35(5), 1040–1048.
- Scott, J.A., & Nagy, W.E. (2004). Developing word consciousness. In J.F. Baumann & E.J. Kame'enui (Eds.), *Vocabulary instruction: Research to practice* (pp. 201–217). New York: Guilford.
- Thorndike, E.L. (1917). Reading as reasoning: A study of mistakes in paragraph reading. *Journal of Educational Psychology*, 8(6), 323–332. doi:10.1037/h0075325
- White, T.G., Graves, M.F., & Slater, W.H. (1990). Growth of reading vocabulary in diverse elementary schools: Decoding and word meaning. *Journal of Educational Psychology*, 82(2), 281–290. doi:10.1037/0022-0663.82.2.281

Lane teaches at the University of Florida, Gainesville, USA; e-mail hlane@ufl.edu. Arriaza Allen teaches at the University of Florida; e-mail satienza@ufl.edu.